IN THE CLAIMS:

Amend the claims as follows.

Cancel claims 1-48, without prejudice.

Add the following new claims.

--49. A vaccine composition obtained by immunizing a mammal with an effective amount of:

a composition comprising purified recombinant HCV single or specific oligomeric recombinant envelope proteins selected from the group consisting of E1 and/or E2 and/or E1/E2; and optionally a pharmaceutically acceptable adjuvant.

50. A composition according to claim 49 wherein said recombinant HCV envelope proteins are produced by recombinant mammalian cells.

51. A composition according to claim 49 wherein said recombinant HCV envelope proteins are produced by recombinant yeast cells.

52. A vaccine composition obtained by immunizing a mammal with an effective amount of a composition comprising purified recombinant HCV single or specific oligomeric recombinant envelope proteins selected from the group consisting of E1 and/or E2 and/or E1/E2, and optionally a pharmaceutically acceptable adjuvant;

said proteins being the expression product of at least one recombinant vector selected from the group consisting of:

a) a recombinant vector comprising a vector sequence, a prokaryotic, eukaryotic or viral promoter sequence followed by a nucleotide sequence allowing the expression of said single or specific oligomeric E1 and/or E2 and/or E1/E2 protein;

b) a recombinant vector according to (a), with said nucleotide sequence being characterized further in that it encodes a single HCV E1 protein starting in the region between amino acid positions 1 and 192 and ending in the region between amino acid positions 250 and 400;

c) a recombinant vector according to (b), with said nucleotide sequence being characterized further in that it encodes a single HCV E1 protein starting in the region between amino acid positions 117 and 192 and ending in the region between amino acid positions 263 and 400;

d) a recombinant vector according to (b) or (c), with said nucleotide sequence being characterized further in that in encodes a single HCV E1 protein bearing a deletion of the first hydrophobic domain between positions 264 to 293, plus or minus 8 amino acids;

e) a recombinant vector according to (a), with said nucleotide sequence being characterized further in that in encodes a single HCV E2 protein starting in the region between amino acid positions 290 and 406 and ending in the region between amino acid positions 600 and 820;

f) a recombinant vector according to (e), with said nucleotide sequence being characterized further in that it ends at any of amino acid positions 623, 650, 661, 673, 710, 715, 720, 746 or 809;

g) a recombinant vector according to any one of (b)-(f), said nucleotide sequence further comprising a 5'-terminal ATG codon and a 3'-terminal stop codon; and

h) a recombinant vector according to any one of (b)-(g) further comprising a factor Xa cleavage site and/or 3 to 10 histidine codons positioned 3'-terminally to said nucleotide sequence.

53. A vaccine composition obtained by immunizing a mammal with an effective amount of a composition comprising at least one of the following E1 and/or E2 peptides:

E1-31 (SEQ ID NO:56) spanning amino acids 181 to 200 of the Core/E1 V1 region,

E1-33 (SEQ ID NO:57) spanning amino acids 193 to 212 of the E1 region,

E1-35 (SEQ ID NO:58) spanning amino acids 205 to 224 of the E1 V2 region (epitope B),

E1-35A (SEQ ID NO:59) spanning amino acids 208 to 227 of the E1 V2 region (epitope B),

1bE1 (SEQ ID NO:53) spanning amino acids 192 to 228 of E1 regions V1, C1, and V2 regions (containing epitope B),

E1-51 (SEQ ID NO:66) spanning amino acids 301 to 320 of the E1 region,

E1-53 (SEQ ID NO:67) spanning amino acids 313 to 332 of the E1 C4 region (epitope A),

E1-55 (SEQ ID NO:68) spanning amino acids 325 to 344 of the E1 region,

Env 67 or E2-67 (SEQ ID NO:72) spanning amino acid positions 397 to 418 of the E2 region (epitope A),

Env 69 or E2-69 (SEQ ID NO:73) spanning amino acid positions 409 to 428 of the E2 region (epitope A),

Env 23 or E2-23 (SEQ ID NO:86) spanning positions 583 to 602 of the E2 region (epitope E),

Env 25 or E2-25 (SEQ ID NO:87) spanning positions 595 to 614 of the E2 region (epitope E),

Env 27 or E2-27 (SEQ ID NO:88) spanning positions 607 to 626 of the E2 region (epitope E),

Env 178 or E2-178 (SEQ ID NO:83) spanning positions 547 to 586 of the E2 region (epitope D), and

Env 13B or E2-13B (SEQ ID NO:82) spanning positions 523 to 542 of the E2 region (epitope C).

54. A vaccine composition obtained by immunizing a mammal with an effective amount of a composition comprising at least one E2 conformational epitope selected from the group consisting of

epitope F recognized by monoclonal antibodies 15C8C1, 12D11F1, and 8G10D1H9,

epitope G recognized by monoclonal antibody 9G3E6,

epitope H (or C) recognized by monoclonal antibodies 10D3C4 and 4H6B2, and

epitope I recognized by monoclonal antibody 17F2C2.

55. A method of immunizing a mammal against HCV comprising administering an effective amount of a composition according to any one of claims 49-51 and, optionally, a pharmaceutically acceptable adjuvant.

56. The method of claim 53 wherein said mammal is a human.--

REMARKS

Claims 1-48 have been canceled, without prejudice.

Claims 49-56 have been added. The present divisional application has been filed to pursue the allegedly distinct invention of Group X (claim 37) of the restriction requirement of May 28, 1997 in the parent Application No. 08/612,973.